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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,263	02/27/2004	Kouichi Okugami	57454-997	1319

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EXAMINER

FOOTLAND, LENARD A

ART UNIT PAPER NUMBER

3682

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/787,263

Applicant(s)

OKUGAMI ET AL.

Examiner

Lenard A. Footland

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 3,6,9 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-27-04&9-17-04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Applicant's election without traverse of the article invention and species of Fig(s). 1a is acknowledged. Claim(s) 3, 6, 9, and 13-16 are withdrawn from further consideration by the examiner, 37 C.F.R. § 1.142(b), as being drawn to non-elected species, not all claims depending upon or otherwise including the limitations of an allowed generic claim.

Applicant is reminded that if the amendment of any claims results in a change of the species they read upon, that is required to be indicated. In addition, if any new claims are added, it is required that the applicant indicate which of them read on the elected species. Failure to do so will result in a holding of nonresponsiveness.

Claim(s) 1-2, 10 are rejected under 35 U.S.C. § 112, first and/or second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "austenitic grain number" does not appear to be a standard international term. For example, it exists in only 2 U.S. patents or publications, and is defined in neither. If there is an internationally recognized meaning of this term it should be proved by a technical dictionary definition or similar documentation.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim(s) 4-5, 11 (and claim[s] 1-2, 10, to the extent understood), is/are rejected under 35 U.S.C. § 102(e), as being anticipated by Maeda et al. ("Maeda").

Maeda discloses all of the claimed elements including, for example, differential, carbonitriding and austenite (abstract).

There is reason to believe, based on the similarity of material, that the functional limitation(s) of fracture stress value may be (an) inherent characteristic(s) of Maeda's steel. In accordance with *In re Best*, 562 F.2d 1252, 195 USPQ 430, 433 (CCPA 1977):

[W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

This “burden of rebutting [may be of] the PTO’s reasonable assertion of inherency under 35 USC 102, or of prima facie obviousness under 35 USC 103” (195 USPQ at 432).

Accordingly, the burden is placed upon the applicant to prove that the limitation in question is not (an) inherent characteristic(s) of the reference disclosure.

Claim(s) 7, 12 are rejected under 35 U.S.C. § 102(e), as being anticipated by Takemura et al.¹²³² (“Takemura”).

Takemura shows differential, carbonitriding, and (Table 2) hydrogen ppm less than .5 (e.g. 8-10) to improve lifetime (L10).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Takemura as in the rejection of claims 7, 12 above, in view of Maeda.

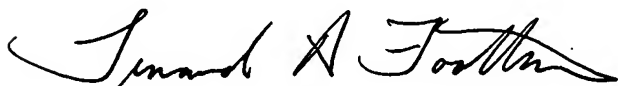
The examiner finds that Takemura discloses all of the claimed elements except for tapered bearings.

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The examiner finds that the Maeda reference discloses the conventionality of the use of tapered bearings for the self-evident purpose of providing both radial and thrust support, and heavier loads. Applying the test for obviousness set forth in *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981), which is what the combined teaching of the references would have suggested to those of ordinary skill in the art, the examiner finds that one having ordinary skill in the art would have found that substituting the Takemura bearings with the thrust bearings of Maeda would have been obvious in view of the teaching of Maeda to provide both radial and thrust support, and heavier loads.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lenard A. Footland, whose telephone number is (571) 272-7103.

Fax: 703-872-9326



Lenard A. Footland

Primary Examiner

Technology Center 3600

Art Unit 3682

laf

December 5, 2005